

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

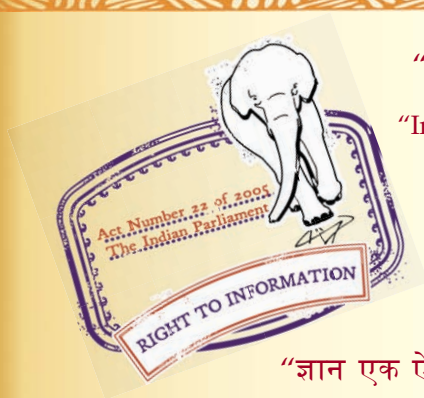
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 13500 (1992): Spray Dried Milk Powders - Scorched Particles - Determination [FAD 19: Dairy Products and Equipment]



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“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS 13500 : 1992

(Reaffirmed 2003)

भारतीय मानक

फूहार शुष्क दूध पाऊडर — जले दूध के कण — ज्ञात करना

Indian Standard

**SPRAY DRIED MILK POWDERS —
SCORCHED PARTICLES — DETERMINATION**

UDC 637.143

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

August 1992

Price Group 1

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Dairy Products Sectional Committee had been approved by the Food and Agriculture Division Council.

The level of scorched milk particles in dried milks is an indicator of the quality of milk employed for manufacturing of the product, as well as conditions employed for heat processing of milk at prewarming, concentration and spray drying stages. A lower level of scorched milk particles is also useful for improved reconstitution behaviour of dried milk.

In the preparation of this standard, considerable assistance has been drawn from the methods prescribed by the American Dairy Products Institute (ADPI).

Indian Standard

SPRAY DRIED MILK POWDERS — SCORCHED PARTICLES — DETERMINATION

1 SCOPE

This standard specifies method for determination of scorched particles in spray dried milk powders including infant foods.

2 APPARATUS AND REAGENTS

2.1 Apparatus

2.1.1 Scorched particles standard photoprints for dry milks*.

2.1.2 Balance

Torsion or similar type, approximately 500 g capacity and 0.1 g or better sensitivity.

2.1.3 Mixer

Waring Blender or similar type. Waring Blender with worn or bent shaft should be replaced immediately since metal particles may be produced, given false scorched particles reading.

2.1.4 Scorched Particles Filtering Discs*

Cotton discs 3.8 cm (1.25") diameter or cotton pads mounted on test cards use with the aspirator type tester.

2.1.5 Scorched Particles Discs Test Cards*

2.1.6 Scorched Particle Tester*

Aspirator or pressure type, 3.2 cm (1.25") filtering diameter.

2.2 Reagents

2.2.1 Defoaming Agent

Diglycol laurate S or Antifoam B emulsion, A 5757 Sigma.

2.2.2 Water

Sediment free, distilled, between 32.5 and 41°C.

3 PROCEDURE

3.1 Measure 250 ml sediment free water in waring blender jar. Start the mixer and add 25 g of non-fat dry milk or dry butter milk or 32.5 g dry whole milk.

3.2 Add approximately 0.5 ml of diglycol laurate S and mix for 60 seconds in the blender. Filter the entire solution through a standard cotton disc, using an aspirator or pressure type tester.

3.3 Rinse the mixing container in tester with approximately 50 ml of sediment free water, also passing this through the cotton disc.

3.4 If reliquified sample is allowed to stand before filtering, stir vigorously just before pouring it into the tester. Do not allow samples to stand uncovered.

3.5 Remove the filter disc, place it in a scorched particle disc test card and dry at 30 to 40°C in a dust free atmosphere.

3.6 Compare the dry disc, placed on a table and viewed from directly above with the scorched particle standard photoprints under uniform, indirect light. Any test falling between two standard discs should be assigned the higher disc's letter.

Example: A disc showing more scorched particles than the standard disc A but less than B should be assigned B, and similarly for the other discs.

NOTE — For illustrative purposes only, a black-and-white reproduction of these standard discs is given below. These illustrations shall not be used for official classification of scorched particle content (see Fig. 1).

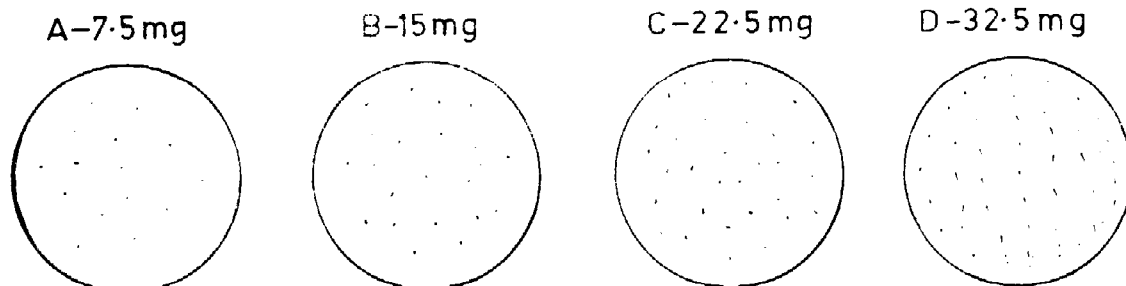


FIG. 1 SCORCHED PARTICLE STANDARDS FOR DRY MILKS

*The information regarding the procurement of these can be obtained from the Bureau of Indian Standards.

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